

**GoO RES-E, RECS and Disclosure GO
Domain Protocol**

**for
Sweden**

Prepared by Grexel Systems Oy

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Version 0.8

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A INTRODUCTION AND PURPOSE

A1 Introduction

A1.1 Certification of the quality and method of energy output provides an efficient mechanism for accounting for: the quality of energy supplied to consumers and its method of production; the progress made towards targets for the use of sustainable energy technologies; and the production and consumption of energy for the purposes of stimulating investment in sustainable energy plant. Moreover, certification enables a value to be accorded to specific types of energy output and traded separately from the energy itself.

A1.2 For a system of energy certification to discharge these functions effectively, users of the Certificates – producers, traders, suppliers, consumers, NGOs and governments – must be satisfied that the Certificates provide reliable evidence of the qualities to which they relate. The European Energy Certification System (EECS) framework is designed to give all such users confidence in the Certificates issued and processed under EECS.

A1.3 The life cycle of an EECS Certificate encompasses three phases: issuance, transfer and Cancellation:

(a) Electronic Certificates are issued on registries in respect the energy output of Production Devices registered specifically for the purposes of GoO RES-E, RECS and Disclosure GO.

(b) These Certificates may be transferred from the account of the producer to that of a trader, and so on; either within the country of origin or to other registries in the EECS network across Europe.

(c) Cancellation is the mechanism whereby the Certificate is removed from circulation. Cancellation occurs at the point at which the value of the Certificate is realised. Examples of circumstances in which the Cancellation of a Certificate may occur include: in connection with payment from a consumer in recognition of the qualities it represents; in connection with the award by government of a financial incentive, such as a tax rebate; or by way of discharge of a contractual or legal obligation.

A1.1 Together with the Standard Terms and Conditions, this Domain Protocol establishes the EECS Schemes GoO RES-E, RECS and Disclosure-GO for the Domain defined in B1.2 below.

A2 Purpose

A2.1 This Domain Protocol sets out the procedures, rights and obligations for GoO RES-E, RECS and Disclosure as used within this Domain.

A2.2 This Domain Protocol is made binding between the Scheme Participant and Grexel Systems Oy by agreement in the form of the Standard Terms and Conditions. The duties under this Domain Protocol are owed specifically between Grexel Systems Oy and the Scheme Participant.

A2.3 The objective is to ensure quality in the robustness and transparency in facilitating GoO RES-E, RECS and Disclosure for all Scheme Participants.

A2.4 This document also contains explanatory text to help Scheme Participants. This text is for information only and is identified by having a shaded background.

A2.5 Important contact information is provided in Annex 1 – Contacts List.

B SCOPE AND RESPONSIBILITY

B1 This Domain Protocol

- B1.1 This Domain Protocol specifies the procedures for the issue, and use as evidence of transfer of ownership and eventually removal of Scheme Certificates held within the EECS Registration Database of Grexel Systems Oy and may only be amended or added to by Grexel Systems Oy in accordance with section J below.
- B1.2 This Domain Protocol applies to Sweden, in conjunction with Scheme Certificates held within the EECS Registration Database.

B2 Responsibility

- B2.1 Grexel Systems Oy is responsible for the operation of the Scheme Certificate system for this Domain.
- B2.2 Some of the functions facilitating system operation may be contracted out to approved agents of Grexel Systems Oy.
- B2.3 The Central Monitoring Office (CMO) is the primary role in the operation of an EECS Scheme in a Domain. The function of the CMO is to administer and maintain the database of qualifying Production Devices and EECS Certificates for that Domain. In Sweden this function is performed by Grexel Systems Oy. The charges for accounts and transactions are shown on the website <http://cmo.grexel.com>.
- B2.4 The CMO is not responsible for the authorisation of Certificates, although it is responsible for 'issuing'; the creation of Certificate records within its registry.

C DEFINITIONS

C1 This document

C1.1

Unless the context otherwise requires or there is express provision to the contrary, all terms in this Domain Protocol shall have the meanings ascribed to them in section B of the Principles and Rules of Operation of the Association of Issuing Bodies (AIB) for The European Energy Certification System, which can be found at <http://www.aib-net.org>

TERM	MEANING
Competent Authority	in relation to the exercise or discharge of any legislative, governmental, regulatory or administrative function, the body duly authorised under the laws and regulations of Sweden to exercise or discharge that function;
Scheme Participant	an Account Holder or a Registrant of a Production Device on the EECS Registration Database for the purposes of GoO RES-E, RECS and Disclosure GO within Sweden;
Net Electrical Energy Generation	the gross electricity production of a Production Device as evidenced by measured values collected and determined by an Authorised Body (or where appropriate an Approved Measurement Body) with reference to its Import and Export Meters (adjusted by meter amendments and the outcome of any disputes) minus the demand of any generating auxiliaries and minus losses in the main generator transformers on the site of the Production Device;
Cesar	Swedish national registration database for national support certificates (Elcertifikat) and guarantees of origin. The public pages of the registration database can be found in http://elcertifikat.svk.se and http://ursprungsgaratier.svk.se .
SE-GO	Swedish national Guarantee of Origin for electricity issued under Swedish law 2010:601 concerning guarantees of origin for electricity. This law implements the provisions for Guarantees of Origin for renewable electricity set out in Directive 2009/28/EC on the promotion of the use of energy from renewable sources. SE-GOs can be issued for electricity from renewable, fossil and nuclear sources.
Elcertifikat	Swedish national electricity certificate trading scheme for supporting electricity production from renewables. Affärsverket Svenska Kraftnät established and runs the certificate register and issue certificates based on meter readings. The same MWh that is eligible for Elcert can also have a SE-GO for RES-E. Elcertifikat can be issued for following energy types: <ul style="list-style-type: none"> • Wind • Solar • Wave • Geothermal • Biomass: <ul style="list-style-type: none"> o Energy crops o Forestry by-products and waste o Landfill gas o Sewage gas o Other biogas o Waste wood • Small hydro (installed capacity < 1 500) • Large hydro with commission date equal to or greater than 1st

	<p>January 2003</p> <ul style="list-style-type: none"> • Large hydro that is renovated after 30th April 2003 so that energy output of the installation has increased; the increased energy output is eligible for Elcert. After an application from the producer, the Swedish Energy Agency (STEM) approves the measures for increasing the capacity, according to the regulated procedures, and a percentage of the total new production as the increased production eligible for Elcert. The percentage is applied by Svenska Kraftnät to the metered values from the production plant and for this volume Elcerts are issued. • Peat used in a CHP capable Production Device
EECS Issuing request	A request submitted electronically by an EECS Account Holder in Cesar in order to have EECS certificates issued based on eligible Swedish national guarantees of origin in their account and thereby permanently withdrawing the respective Swedish national guarantees of origin.
Correction Factor	A multiplier < 1 that is used to rectify the amount of issued EECS certificates as compared to the number of respective withdrawn Swedish guarantees of origin because of the metering arrangement of the relevant Production Device not meeting the requirements described in this document or in case gross measurement is used. The Correction Factor is determined by an accredited Production Registrar or in the absence of such estimate, by Grexel Systems Oy, in which case it is deemed as 0,90.
Scheme Certificate	<p>An EECS Certificate issued under one or more of the following EECS Schemes:</p> <ul style="list-style-type: none"> • GoO RES-E • RECS • Disclosure-GO

D GUARANTEES OF ORIGIN (GOO RES-E), RECS AND DISCLOSURE-GO

D1 Scheme Definition GoO RES-E

D1.1 The European Parliament and the Council Renewable Energy Directive (2009/28/EC) requires the use of Guarantees of Origin to enable Member States to accurately and reliably guarantee the origin of renewable energy according to objective, transparent and non-discriminatory criteria; and to enable producers of renewable energy to demonstrate this. Such guarantees must be mutually recognised by Member States.

D1.2 In Sweden article 15 of the Directive 2009/28/EC is implemented by:

- (a) Lag om ursprungsgarantier för el (SFS 2010:601)
- (b) Förordning om ursprungsgarantier för el (SFS 2010:853)

D1.3 Grexel Systems Oy has been appointed to act as the registration database administrator for EECS GoO RES-E in Sweden.

D2 Scheme Definition RECS

D2.1 The 'Renewable Energy Certificate System' (RECS) enables international trade in the renewable attribute of energy generation by uncoupling environmental value from the associated physical energy. It is a voluntary system whose trading is governed by RECS International.

D3 Scheme Definition Disclosure-GO

D3.1 The European Parliament and the Council Internal Electricity Market Directive (2009/72/EC) requires electricity retailers to disclose the fuel mix of their sources of electricity. EECS Disclosure-GO Certificates provide an auditable evidential mechanism for the transfer of generation attributes between generators and retailers. EECS Disclosure Certificates can be applied to all forms of electricity production.

D3.2 Grexel Systems Oy has been appointed to act as the registration database administrator for EECS Disclosure Certificates in Sweden.

D4 Supplementary Definitions

D4.1 This Domain Protocol supplements the terms of the SE-GO Scheme as set out in Lag om ursprungsgarantier för el (SFS 2010:601).

D4.2 A Scheme Certificate Issued under this domain protocol is derived from and incorporates the relevant electronic data from one or more SE-GO Certificates issued under Lag om ursprungsgarantier för el (SFS 2010:601).

D4.3 Renewable Energy shall have the meaning assigned to it by the Directive (2009/28/EC). Electricity produced from Renewable Energy sources is referred to in this document as RES-E.

D5 Qualifying Criteria for all Scheme Certificates

D5.1 The qualifying criteria for Production Devices are:

- (a) the Production Device is capable of generating electricity;
- (b) the metering arrangements for the electrical inputs and outputs of the Production Device (including electrical energy consumed in storing energy for use by that Production Device) satisfy the legislative and administrative requirements applicable in Sweden (including the requirements of this Domain Protocol);
- (c) the Production Device satisfies the legislative and administrative requirements applicable in Sweden (including the requirements of this Domain Protocol).

D5.2 Scheme Certificates will not be issued for:

- (a) any electrical energy which has been found not to be generated from the energy source claimed by the Registrant of the Originating Production Device; or

- (b) any Production Device which is not registered for the purposes of the relevant EECS Scheme(s) in the EECS Registration Database; or
- (c) any electrical energy, of which the measured value has not been collected and determined by an Authorised Measurement Body.

D5.3 Subject to E3 below, the qualifying period of registration for the purposes of Scheme Certificates shall be not more than five years. The Registrant must re-apply for registration of the Production Device before the expiry of the qualifying period.

D6 **Additional Qualifying Criteria for GoO RES-E and RECS**

D6.1 The qualifying criteria for Production Devices are set out in the Directive (2009/28/EC) and are summarised here. In the event of any differences, the definitions of the Directive take precedence.

- (a) All wind turbine devices.
- (b) All solar devices.
- (c) Energy from water devices except for pumped storage.
- (d) All geothermal devices.
- (e) Biomass devices as defined in the Renewable Energy Directive, the Large Combustion Plants Directive and the Waste Combustion Plants Directive.

D6.2 For biomass devices deriving energy from waste or by-product sources, only the energy attributable from the non-fossil element will be eligible for GoO RES-E or RECS Certificates.

D7 **Support Schemes**

D7.1 Support schemes that are relevant to the operation of the GoO RES-E, RECS and Disclosure-GO schemes are listed in AIB PRO Fact Sheet 3 – Types of Public Support. This document can be viewed at www.aib-net.org under the section: Association – EECS – Fact Sheets.

D7.2 The Registrant of a Production Device must guarantee that the owner of the Production Device, or his agent, will not during the period of its registration for the purposes of GoO RES-E, RECS and Disclosure-GO and for the same unit of electrical energy receive tradable evidence such as Certificates which represent the origin of electricity for the purpose of electricity disclosure. For the sake of clarity, it is allowed to receive Elcertifikat for the purpose of receiving financial support, in which case the respective EECS certificate is marked with an Earmark indicating that production support is received. Elcertifikat cannot be used for electricity disclosure purpose in Sweden.

D8 **Certificate Face Values**

D8.1 No more than one EECS Certificate shall be issued per MWh of electricity produced. Scheme Certificates can be Issued with the following Face Values:

- (a) 1 MWh

E PARTICIPATION AND REGISTRATION

E1 Scheme Participation

- E1.1 Any legal person who is not a member of the Association of Issuing Bodies or such member's affiliate or agent can be a GoO RES-E, RECS and/or Disclosure-GO Scheme Participant.
- E1.2 Information on how to open an Account can be found on the website <http://cmo.grexel.com>.
- E1.3 The GoO RES-E, RECS and/or Disclosure-GO Scheme Participant must contract with Grexel Systems Oy under the Standard Terms and Conditions.
- E1.4 Grexel Systems Oy will issue each authorised user with an identification and password to enable secure communications. It is the responsibility of the Scheme Participant to keep such identification secret.
- E1.5 In very limited circumstances, including recovery of undisputed debt from a Scheme Participant in default and purchases for its own use, Grexel Systems Oy can buy and sell certificates. Such activities are reported to the Association of Issuing Bodies.

E2 Registration of a Production Device

- E2.1 Only the owner of a Production Device, or a Registrant duly authorised by the owner, may register a Production Device, which is located in Sweden in the EECS Registration Database.
- E2.2 The Registrant of the Production Device must provide evidence to the satisfaction of Grexel Systems Oy that it has the appropriate authority to register the Production Device and that it can comply with the requirements of the GoO RES-E, RECS and Disclosure GO Scheme and this Domain Protocol with respect to the imposition of duties on the owner and/or operator of the Production Device.
- E2.3 An applicant registering a Production Device must provide the following information:
- (a) the applicant's name and address and additional contact details, including the name of the individual responsible for the application, phone number, fax number and e-mail address;
 - (b) the names of persons authorised to act for the Registrant;
 - (c) the EECS Scheme or Schemes with respect to which it is applying for registration;
 - (d) the Transferables Account into which Scheme Certificates in respect of that Production Device are to be Issued;
 - (e) the location of that Production Device, its name and address;
 - (f) details of the Export Meter(s) for that Production Device;
 - (g) details of any generating auxiliaries associated with that Production Device;
 - (h) where there are generating auxiliaries associated with that Production Device and the consumption of these auxiliaries is not determined by an Export Meter, details of Import Meter(s) which determine the electricity consumption by the Production Device;
 - (i) (irrespective of whether or not there is any intention to use such sources of energy in connection with the Production Device) all sources of energy that may be converted into energy outputs by that Production Device by reference to the source types set out in AIB PRO FACT Sheet 5¹;
 - (j) If one of the energy sources used by the Production Device is nuclear, the nominal radioactive waste produced by the reactor in g/MWh produced.
 - (k) the nature of that Production Device, in terms of technology by reference to the types set out in AIB PRO FACT Sheet 5¹;
 - (l) the Nominal Capacity of that Production Device;
 - (m) where at the time of such application it has been commissioned, the date on which that Production Device was commissioned;

¹ http://www.aib-net.org/portal/page/portal/AIB_HOME/AIB_OPE/EECS/PRO_FACTS

- (n) a diagram of that Production Device, including details on the location of:
 - (i) the Export Meter(s) for the Production Device;
 - (ii) any transformer substations at the site of the Production Device;
 - (iii) any generating auxiliaries for the Production Device; and
 - (iv) any Import Meters for the Production Device.
- (o) a description of how the amount of Net Electrical Energy Generation produced by that Production Device shall be calculated from the meter readings to be provided.

The online registration wizard containing all the items listed in E2.3 above can be found on the website <http://cmo.grexel.com>.

- E2.4 The Qualifying Criteria for a Production Device within the GoO RES-E, RECS and Disclosure GO scheme are given in D5 and D6 above.
- E2.5 The Registrant must warrant that the information provided to Grexel Systems Oy in connection with its application is complete and accurate and that the Production Device meets the qualification criteria for the EECS Scheme or Schemes with respect to which it is applying for registration.
- E2.6 The Registrant must also provide details of any public support schemes (other than payments arising from the sale of Scheme Certificates) which have been received by, or are due to accrue to, any person in relation to the Production Device under any of the Public Support schemes identified in D7.1 above.
- E2.7 The CMO, Grexel Systems Oy, will respond to the application within 5 working days from its receipt.
- E2.8 Grexel Systems Oy shall verify the registration information against the information registered by Swedish Energy Agency for the purpose of receiving public support in the form of Elcertifikat or of receiving SE-GO.
- E2.9 In case the information cannot be verified to the satisfaction of Grexel Systems Oy using the sources mentioned above, Grexel Systems Oy may require the Registrant to have the information in the registration form verified by a Production Registrar (see I2.1 below) as part of the approval process.
- E2.10 An application for the registration of a Production Device for the purposes of Scheme Certificates will be rejected if:
 - (a) in relation to that application, the applicant has failed to comply with any requirements of this Domain Protocol or the Standard Terms and Conditions;
 - (b) the Qualification Criteria are not satisfied in respect to that Production Device;
 - (c) there are one or more generating auxiliaries for that Production Device the consumption of which are not determined by an Export Meter, and it is not fitted with Import Meters; or
 - (d) Grexel Systems Oy and the Production Registrar are prevented from satisfactorily verifying the application by the applicant or the owner or operator of the relevant Production Device.
- E2.11 On successful completion of the registration process, Grexel Systems Oy will assign a unique identifier to each registered Production Device, if one has not already been assigned in that EECS Registration Database under another EECS Scheme.
- The identifier consists of a number with 18 numeric characters that also identifies the Domain of origin. GS1 coding is used.
- E2.12 The Registrant consents to the publication by Grexel Systems Oy or its CMO of data provided in the course of its application for registration in relation to each of its Production Devices registered on the database on its web page <http://cmo.grexel.com> with the exception of:
 - A 鞆ヲ鞆 detailed descriptions of plant and equipment;
 - (b) graphical representations of the Production Device and its location, including diagrams and photographs; and
 - (c) details of:

- (i) the person responsible for the application; and
- (ii) where the Registrant of the Production Device is not its owner, the Production Device's owner.

E3 Changes in Registered Details

- E3.1 The Registrant of a Production Device must notify Grexel Systems Oy of any planned changes due to come into effect that will result, or unplanned changes that have resulted, in:
- (a) the information recorded in the EECS Registration Database in relation to the Production Device becoming inaccurate; or
 - (b) the Qualification Criteria ceasing to be satisfied with respect to one or more EECS Schemes for which that Production Device is registered.
- E3.2 On receipt of a change of details notification (following an inspection or otherwise), Grexel Systems Oy will evaluate the impact of the changes on the Qualifying Criteria and respond to the Registrant within five (5) working days specifying the decision taken.
- E3.3 Where Grexel Systems Oy becomes aware that a Production Device no longer fulfils, or will no longer fulfil, the Qualification Criteria of an EECS Scheme set out in section D, the EECS Registration Database record for that Production Device will be updated to show that the Production Device no longer qualifies for that EECS Scheme with effect from:
- (a) (in relation to planned changes notified in advance) the date on which such planned changes are due to come into effect; or
 - (b) (in relation to other changes) as soon as reasonably practicable after becoming so aware.

E4 Withdrawing from the Scheme - Closing an Account

- E4.1 The Account Holder must notify Grexel Systems Oy of an intent to close his account. The effective date of closure must not be less than 5 working days from the date of receipt by Grexel Systems Oy.
- E4.2 Grexel Systems Oy will amend the EECS Registration Database to seal that Account as of the effective date on the request or 5 working days from the date of receipt by Grexel Systems Oy, whichever is the later.
- E4.3 Commercial provisions of closing an account are set in the contract between Grexel Systems Oy and the Account Holder.

E5 Withdrawing from the Scheme - Deregistering a Production Device

- E5.1 The Registrant must notify Grexel Systems Oy of an intent to deregister his Production Device in writing.
- E5.2 Commercial provisions of deregistering a Production Device are set in the contract between Grexel Systems Oy and the Registrant.

E6 Withdrawing from the Scheme - Registration Expiry

- E6.1 Unless otherwise directed by legislation identified in D1 above, the registration of a Production Device as qualifying for Scheme Certificates in the EECS Registration Database will expire after five (5) years. Grexel Systems Oy will amend with immediate effect the relevant records in the EECS Registration Database to indicate that the Production Device no longer qualifies for Scheme Certificates.
- E6.2 The Registrant may avoid expiry by successfully completing re-registration of the relevant Production Device as set out in section E2 above. Following expiry, the Registrant may apply for re-registration of the relevant Production Device.
- E6.3 Grexel Systems Oy may determine that a Registrant need not re-register a Production Device where it is able to verify the accuracy of the registered information held in its EECS Registration

Database. Grexel Systems Oy will verify the registered information on Production Devices held in its EECS Registration Database against the corresponding data in Cesar one month before expiry.

F PRODUCTION DATA

F1 Metering

F1.1 Only Production Devices that are equipped with metering equipment that complies with the relevant regulations for the trading of generation energy shall be registered. The metering equipment may measure on a scalar basis (meter advance only) or on a period basis (energy measured in units of time) according to the regulations.

F1.2 For the avoidance of doubt, the relevant regulations are the versions of the following agreements and codes presently in force at the time:

- (a) Statens energimyndighets föreskrifter och allmänna råd om mätning, beräkning och rapportering av överförd el (STEMFS 2007:5)
- (b) Styrelsens för ackreditering och teknisk kontroll (SWEDAC) föreskrifter och allmänna råd om återkommande kontroll av mätare för aktiv elenergi (STAFS 2009:9)
- (c) Statens energimyndighets föreskrifter om ursprungsgarantier för el (STEMFS 2010:3)

F1.3 In certain cases the regulation enables the use of gross measurement for the purpose of receiving Elcertificates and SE-GO. In these cases or/and if the metering requirements stated in F1.2 above are not met, the Registrant of the Production Device shall conduct a Production Registrar accredited by Grexel Systems Oy to calculate a Correction Factor that rectifies at least the possible measurement error and auxiliaries consumption. The measurement values are then multiplied by the Correction Factor before issuing of EECS certificates. In case the Registrant does not provide a Correction Factor calculated and verified by an accredited Production Registrar, Grexel Systems Oy shall use 0,9 as the Correction Factor for the Production Device.

F1.4 Unless determined under the regulations listed in F1.2 above, the metering Measurement Frequency shall be no less than twelve-monthly.

F2 Data Provision

F2.1 If the Registrant wishes to receive Scheme Certificates for his Production Device for his Production Device in an issuing period, he must request the issuance of those certificates in Cesar. Such an EECS issuing request results in

- (a) the relevant SE-GO being permanently withdrawn from the Cesar database; and
- (b) Scheme Certificates, adjusted by the Correction Factor (as described in F1.3 above) if applicable, being issued into the account of the Registrant on the EECS registration database (<http://cmo.grexel.com>).

F2.2 In the event that it transpires that the data in any Scheme Certificate is inaccurate (whether or not through an act or omission of the Registrant of the Originating Production Device):

- (a) Grexel Systems Oy shall (provided that such Scheme Certificates are, at the time of such Withdrawal, in the Transferables Account of that Registrant) Withdraw those Certificates; and
- (b) the Registrant shall pay Grexel Systems Oy the cost of securing the agreement of another Account Holder to the Withdrawal of Scheme Certificates of the same type from that other Account Holder's Transferables Account,

so that, as far as reasonably practicable, Scheme Certificates are withdrawn with a Face Value and a financial value which make good the discrepancy.

G PROCESSING OF CERTIFICATES

G1 Issuing for Transfer

G1.1 Scheme Certificates are only issued under this Domain Protocol:

- (a) in respect of a Production Device which is, at the time of Issue:
 - (i) situated in Sweden;
 - (ii) registered in the EECS Registration Database of Grexel Systems Oy as qualifying for Scheme Certificates; and
 - (iii) the Registrant of which does not have any outstanding fees payable to Grexel Systems Oy or its agents in conjunction with Scheme Certificates;
- (b) in respect of the qualifying energy output of such a Production Device during any period in which it was registered in an EECS Registration Database for the purposes of the RES-GO, RECS and/or Disclosure GO schemes, provided that the last day on which the measured energy output was generated is not more than:
 - (i) thirteen (13) calendar months after the first day on which the measured energy output was generated; and
 - (ii) twelve (12) calendar months before the date of issue of any related EECS certificates

G1.2 Subject to G1.1 above Scheme Certificates are issued against energy data submitted in accordance with F1 above.

G1.3 Where the Measurement Frequency is not more than monthly, the Issuing Frequency shall be at least monthly; and where the Measurement Frequency is more than monthly, then the Issuing Frequency shall be the same as the Measurement Frequency.

G1.4 Where the Measurement Frequency is more than monthly, then the number of Scheme Certificates issued to a Production Device for each month must either be equal, or as directed by an officially approved production profile.

G1.5 Only persons duly authorised by the Registrant may request the issue of Scheme Certificates in relation to the output of that Production Device.

G1.6 For each whole MWh of qualifying energy output of the Production Device, exactly one Scheme Certificate will be issued. For the sake of clarity, only one EECS Certificate can be issued per MWh of qualifying energy output. Any identifiable residual kWh will be carried forward to the next issuing period.

G1.7 The CMO will deposit the Certificates in the Transferables Account nominated by the Registrant within the EECS Registration Database no later than 2 working days after the receipt of a valid EECS Issuing Request.

G1.8 The Scheme Certificates shall be issued in such format as may be determined by AIB from time to time.

G1.9 A Scheme Certificate identifies the entitlement of the Account Holder of the Transferables Account in which it is held to the attributes of:

- (a) the energy source for the quantity of energy output to which it relates; and/or
- (b) the method and quality of the production of such energy output;

so as to enable the Account Holder to realise such real and intangible benefits as may be accorded to such entitlement. These entitlements are dependent on the laws of the country in which the Originating Production Device is situated and the laws applicable in any Domain to which they may be transferred for realisation on Cancellation.

G2 **Transfer**

- G2.1 A GoO RES-E, RECS and Disclosure GO Account Holder can hold Scheme Certificates in an account within the EECS Registration Database for Sweden.
- On request the CMO will open an account within 5 working days. The account will be uniquely identified by a number and a name.
- G2.2 The Account Holder can get secure access to the Account to make transfers of Certificates to another Account in the same EECS Registration Database or to another EECS Registration Database for Scheme Certificates in another Domain through the website <http://cmo.grexel.com>.
- G2.3 Only persons duly authorised by the Account Holder may request the transfer Scheme Certificates out of that Account Holder's Transferables Account.
- G2.4 Where a Transfer Request is received with respect to one or more Scheme Certificates held in a Transferables Account on its EECS Registration Database, Grexel Systems Oy will, having confirmed that the Transfer Request is valid:
- (a) remove from that Transferrables Account the details of the Scheme Certificate(s) specified in the Transfer Request;
 - (b) where the Transferee's Transferrables Account specified in the Transfer Request is in the same EECS Registration Database:
 - (i) include the full details of the Scheme Certificate(s) referred to in (a) above in the Transferee's Transferables Account;
 - (ii) confirm, to the Transferor, the identity of the Scheme Certificates so transferred and any Scheme Certificate split in connection with such transfer by reference to their unique identifying number(s) and Face Values; and
 - (iii) confirm, to the Transferee, the identity of the Transferor and of the Scheme Certificates so transferred by reference to their unique identifying number and Face Values; and
 - (c) where the Transferee's Transferables Account specified in the Transfer Request is on a different EECS Registration Database:
 - (i) notify the operator of that other EECS Registration Database of that Transfer Request;
 - (ii) subject to G2.7 below, send the full details of the Scheme Certificates referred to at (a) above to the operator of that other EECS Registration Database;
 - (iii) record on its own EECS Registration Database, the export of such Scheme Certificates, and, where appropriate as a result of the operation of G2.7, the cancellation of their status as Scheme Certificates under any EECS Scheme;
 - (iv) on receipt of confirmation from the operator of that other EECS Registration Database that the transfer has been completed, confirm to the Transferor the identity of the operator of that other EECS Registration Database and of the Scheme Certificates so transferred and of any split in connection with such transfer by reference to their unique identifying numbers and Face Values.
- G2.5 Where Grexel Systems Oy is notified by another EECS Registration Database operator of a Transfer Request including details of a Scheme Certificate which are consistent with the Transfer Criteria for Scheme Certificates together with the account number for a Transferables Account on its own EECS Registration Database, it will:
- (a) insert the full details of that Scheme Certificate in that Account Holder's Transferables Account;
 - (b) confirm to the EECS Registration Database operator that notified it of such Transfer Request that the transfer of that Scheme Certificate has been completed; and
 - (c) confirm, to the Transferee, that such EECS Certificate has been transferred by reference to its unique identifying number and Face Value.
- G2.6 Where Grexel Systems Oy is notified by another EECS Registration Database operator of a Transfer Request involving a Scheme Certificate which does not satisfy the Transfer Criteria for

such Scheme Certificates and/or receives an account number which does not correspond with an account number for a Transferables Account on its own EECS Registration Database, Grexel Systems Oy will use reasonable endeavours to exchange information such that the Scheme Certificate can be rendered compliant with the appropriate Domain Scheme for Sweden or the correct account number identified (as the case may be), failing which:

- (a) the full details of the Scheme Certificate shall be re-entered into the Transferor's Transferables Account on the relevant EECS Registration Database and that EECS Registration Database shall be amended so that the Scheme Certificate is no longer recorded as having been exported; and
- (b) all details of the Scheme Certificate shall be removed from the other EECS Registration Database.

G2.7 Where:

- (a) Grexel Systems Oy receives a Transfer Request in respect of a Scheme Certificate that was issued under two or more EECS Schemes; and
- (b) the Transferee's Transferables Account specified in the Transfer Request is on a registry that is not part of all of those EECS Schemes;

the details of the Scheme Certificate referred to in G2.4(c)(ii) above will be amended to remove any identifier indicating that the certificate is a Scheme Certificate under any Scheme of which that registry is not a part.

G2.8 The CMO will process a transfer request within the following deadlines:

- (a) A request for transferral of Scheme Certificates to an account in the same EECS Registration Database will be executed immediately.
- (b) On a request for transferral of Scheme Certificates to an account in a different EECS Registration Database, the export message will be sent to the receiving CMO within 1 working day.
- (c) On receiving an export message, the CMO will execute that message within 2 working days.

In many cases these processes are fully automated and will occur according to the operational timescales of the AIB communications Hub which may be significantly ahead of these processing deadlines.

G2.9 The Account Holder is required to retain all records to which he has had access relating to Scheme Certificates for a period not less than 10.

G3 **Cancellation**

G3.1 Cancellation is the removal of a Certificate from circulation and is the point at which it ceases to be tradable. Cancellation is achieved through the amendment of its status in the EECS Registration database as inactive.

G3.2 Only persons duly authorised by the Account Holder may request the Cancellation of Scheme Certificates. The request is given electronically through the web site <http://cmo.grexel.com>.

G3.3 A Cancellation request can be made by a person duly authorised by the Account Holder to transfer Scheme Certificates. The request must include:

- (a) the identity and amount of certificates to be cancelled;
- (b) the usage into which this Cancellation falls, where this is one of:
 - (i) support, where the certificate is being cancelled in order to receive financial support;
 - (ii) disclosure, where the certificate is being cancelled under a green labelling scheme or as proof of supply to consumers or for own use, and has not been used in order to receive financial support; or
 - (iii) other, for any other purpose.

- G3.4 On receipt of a valid Cancellation request, Grexel Systems Oy will:
- (a) remove the details of that Scheme Certificate from that Transferables Account; and
 - (b) amend the status of that Scheme Certificate to reflect that it has been cancelled.
- G3.5 A request for Cancellation of a Scheme Certificate will be executed immediately.
- G3.6 On request from an Account Holder, the CMO will produce a standard format, non-transferable, Cancellation statement within 3 working day(s). The request shall include the following details:
- (a) The Scheme Certificates to be cancelled.
 - (b) The recipient of those Certificates, if not the Account Holder.
 - (c) Any other information to be included on the statement
 - (d) The production/issuing date if not sufficiently identified in (a) above.
- G3.7 According to the request, the statement will include some or all of the cancelled Certificates that have not previously been included on such a statement.

The format of the Cancellation statement is shown in Annex 2 – Cancellation Statement to this document.

G4 **Withdrawals**

- G4.1 Grexel Systems Oy may Withdraw a Scheme Certificate held in a Transferables Account on its EECS Registration Database at the request of the Account Holder of that Account, or otherwise in accordance with the provisions of the GoO RES-E, RECS and Disclosure GO scheme, thereby taking the certificates out of circulation.

G5 **Expiry of Scheme Certificates**

- G5.1 Following Primary law SFS 2010:601 a GoO RES-E certificate expires 12 months after the start of the production period of the respective energy unit.
- G5.2 The same expiration rule is applied to all EECS certificates held in accounts within the Domain of Sweden regardless of the type of the Certificate.
- G5.3 The status of an EECS Certificate which has expired under this section G5 will be recorded as expired in the EECS Registration database.
- G5.4 Expired certificates cannot be transferred nor cancelled.

G6 **Errors**

- G6.1 Where an error is introduced (subsequent to its Issue) into, or with respect to, a Scheme Certificate held in the Account Holder's Transferables Account in the EECS Registration Database:
- (a) in the course of its Transfer into that Account; or
 - (b) during such time as it is in such Account,
- Grexel Systems Oy will correct the error in or with respect to that Scheme Certificate and any errors replicated in Scheme Certificates split from it, provided that such Scheme Certificate(s) have not been transferred out of that Transferables Account.
- G6.2 Grexel Systems Oy may Withdraw or alter a Scheme Certificate held in its EECS Registration Database to give effect to an agreement reached with the Account Holder under provisions of the Standard Terms and Conditions.
- G6.3 Grexel Systems Oy may alter a Scheme Certificate held in its EECS Registration Database so as to rectify an error which occurred prior to its transfer into the Account in which it is held at such time, provided:
- (a) the Account Holder has agreed to such alteration;
 - (b) it is reasonably satisfied that any unjust enrichment of a GoO RES-E, RECS and Disclosure GO Scheme Participant as a consequence of such error has, to the extent reasonably practicable, been nullified;

- (c) it is reasonably satisfied that the alteration itself does not give rise to undue enrichment of the Account Holder.

H MONITORING AND REPORTING

H1 Monitoring

H1.1 The Registrant, on behalf of the owner and operator, of a Production Device must permit Grexel Systems Oy, or its agent, to access the Production Device or records associated with it, its energy output and sources of energy when conducting inspections in accordance with this section H1, including, if so required, without prior notice. Refusal to permit such access may be considered a breach of the Standard Terms and Conditions.

H1.2 Grexel Systems Oy, or its agent, will periodically conduct inspections of a Production Device registered on its EECS Registration Database and any associated Import and Export Meters to confirm that:

- (a) the information recorded in relation thereto on the EECS Registration Database is accurate;
- (b) the Registrant and, where applicable, the owner and/or operator of the Production Device, is complying with all relevant obligations under the relevant EECS Schemes; and
- (c) such Production Device continues to meet the Qualification Criteria for the EECS Schemes in relation to which it is registered.

H1.3 Grexel Systems Oy, or its agent, may conduct ad-hoc inspections of records associated with relevant Public Support in relation to Production Devices registered on its EECS Registration Database for the purposes of EECS Schemes.

H2 Activity Reporting

H2.1 In order to maintain an open and orderly market, Grexel Systems Oy has a duty to publish information in relation to the activities of that market.

H2.2 By means of an application on the website <http://cmo.grexel.com>, Grexel Systems Oy provide real-time reporting on the number of Scheme Certificates:

- (a) it has Issued;
- (b) have been imported into accounts within the Domain of Sweden from accounts in other Domains
- (c) have been exported from accounts within the Domain of Sweden to accounts in other Domains
- (d) have been transferred between accounts in the same Domain;
- (e) it has Cancelled.

H2.3 The AIB will publish in respect of each calendar year an annual report within six months of the end of that calendar year on the functioning and efficiency of the market in Scheme Certificates Issued or transferred to accounts in its members' EECS Registration Databases.

H2.4 The annual report referred to H2.3 above shall specify any institutional, structural, and legal impediments to the efficient functioning of the GoO RES-E, RECS and Disclosure GO schemes within Sweden.

H3 Exception Reporting

H3.1 Where as a consequence of an inspection conducted pursuant to H1 above, Grexel Systems Oy determines that the Scheme Participant is in breach of this Domain Protocol or the Standard Terms and Conditions, or determines that a Production Device is in breach of the Qualifying Criteria for an EECS Scheme in relation to which it is registered, Grexel Systems Oy will:

- (a) take such action as is necessary to secure that Scheme Certificates are correctly being issued, such action to include, in a case of material non-compliance with this Domain Protocol or the Standard Terms and Conditions by the Registrant, the

withdrawal of registration of the relevant Production Device for the purposes of any EECS Scheme; and

- (b) notify the AIB of such breach where Grexel Systems Oy is of the reasonable opinion that such breach could affect the transfer of EECS Certificates out of its EECS Registration Database into another EECS Registration Database.

H3.2 Grexel Systems Oy will report any failures by the Scheme Participant to comply with the provisions of this Domain Protocol or the Standard Terms and Conditions to the Competent Authorities in relation to such matters. Such failures shall include behaviour by the Scheme Participant of which Grexel Systems Oy is aware and which, in its reasonable opinion, amounts to a breach of Competition Law, or applicable law governing the conduct of financial markets.

H3.3 Grexel Systems Oy will also notify the AIB of any report made by it under H3.2 providing as much information in relation to such a report as is consistent with any duty of confidentiality it may have to the Scheme Participant.

I AGENTS AND MEASUREMENT BODIES

I1 Production Auditor

- I1.1 The role of the Production Auditor is to verify Production Declarations and (where appropriate) Consumption Declarations made by Registrants of Production Devices to the CMO for the purposes of Certificate issuing. This is to ensure the continued fulfilment of the conditions of registration.
- I1.2 The Production Auditor is an agent of Grexel Systems Oy. The full list of approved Production Auditors is given in Annex 1 – Contacts List to this document and on the website <http://cmo.grexel.com>.
- I1.3 To be a Production Auditor, the company must gain approval from Grexel Systems Oy. The operation of the Production Auditor is under the control of Grexel Systems Oy and the Association of Issuing Bodies.
- I1.4 The Registrant of the Production Device may nominate a Production Auditor from the list in Annex 1 – Contacts List. Such a Production Auditor must be independent of the owner or the Registrant of the Production Device.
- I1.5 The Production Auditor will receive information about the issued Scheme Certificates from Grexel Systems Oy and the registered information relating to the Production Device for the period being reviewed. The Production Auditor will compare generation capacity with the issued number of Certificates and other relevant data e.g. wind speeds, to identify any potential abnormalities.
- I1.6 The Production Auditor will report any discrepancies from the registered information to Grexel Systems Oy as soon as possible.
- I1.7 A Production Auditor may also perform the role of Production Registrar.

I2 Production Registrar

- I2.1 As part of the registration process for the Production Device, it is necessary for the information provided by the applicant to be independently verified. This is normally achieved through an administrative investigation, although site inspections may be performed at the discretion of Grexel Systems Oy. Grexel Systems Oy must verify the application, but can delegate the activity to a Production Registrar as his agent.
- I2.2 The full list of authorised Production Registrars is given in Annex 1 – Contacts List to this document and on the website <http://cmo.grexel.com>.
- I2.3 The Registrant, on behalf of the owner and operator, of a Production Device must permit Grexel Systems Oy, or a Production Registrar as its agent, to access the Production Device or records associated with it, its energy output and sources of energy when conducting inspections in accordance with section I2.1 above.
- I2.4 A Production Registrar may also perform the role of Production Auditor.

J MODIFICATIONS

J1 Modifications to this Domain Protocol

- J1.1 The Scheme Participant may propose a modification to this Domain Protocol;
- J1.2 Such a proposal will include a detailed description, including an exact specification of any proposed modification of this Domain Protocol and be passed in writing to Grexel Systems Oy.
- J1.3 On receipt of such a request, Grexel Systems Oy will:
- (a) Respond to the request within 15 working days, describing the procedures to be followed, and estimating when a reply can be expected;
 - (b) Consult with the other GoO RES-E, RECS and Disclosure GO Scheme Participants within Sweden;
 - (c) Decide whether the request and its consequences are in its opinion reasonable;
 - (d) Inform the GoO RES-E, RECS and Disclosure GO Scheme Participants within Sweden the outcome of this decision.
- J1.4 Grexel Systems Oy may make such modifications to this Domain Protocol as are in its opinion necessary to the effective and efficient operation of the market.
- J1.5 Any modifications to this Domain Protocol are subject to approval by the AIB that such changes do not conflict with the Principles and Rules of Operation of the Association of Issuing Bodies (AIB) for The European Energy Certification System.
- J1.6 Implementation of modifications will be notified by email to the Scheme Participant and will take effect on publication of the documentation on the website <http://cmo.grexel.com>.

K ASSOCIATION OF ISSUING BODIES

K1 Membership

- K1.1 Grexel Systems Oy is a member of the Association of Issuing Bodies (AIB) and is bound by the quality standards of that Association for the international transfer of certificates. Continued membership is essential to facilitate international transfers of Scheme Certificates.
- K1.2 In order to maintain the quality standard across the entire EECS network, all AIB members are subject to audit and periodic peer review.
- K1.3 In the event of Grexel Systems Oy or one of its agents failing to maintain the quality standard, there may be a suspension of Scheme Certificate issuing and/or international transfers into or out of Sweden.
- K1.4 Should Grexel Systems Oy decide to withdraw from AIB membership in respect of GoO RES-E, RECS and Disclosure GO in Sweden, it will give notice in writing to the Scheme Participant in accordance with the Standard Terms and Conditions.

L Annex 1 – Contacts List

Central Monitoring Office and Certificate Authority

Company	Grexel Systems Ltd.
Contact Person	Marko Lehtovaara
Address	Hermannin rantatie 8, FI-00580 Helsinki
Country	Finland
Phone number	+358 9 42413160
Email address	Marko.Lehtovaara(at)grexel.com

Authorized Body and Competent Authority

Company	Affärsverket Svenska Kraftnät
Contact Person	Jenny Fridström
Address	Box 1200, SE-172 24 Sundbyberg
Country	Sweden
Phone number	+46 8 7397821
Email address	Jenny.Fridstrom(at)svk.se

Production Registrars

List can be found at <http://cmo.grexel.com>

Production Auditor

Company	Grexel Systems Ltd.
Contact Person	Marko Lehtovaara
Address	Hermannin rantatie 8, FI-00580 Helsinki
Country	Finland
Phone number	+358 9 42413160
Email address	Marko.Lehtovaara(at)grexel.com

M Annex 2 – Cancellation Statement



Cancellation statement

With this Cancellation Statement the indicated certificates are no longer tradable. Onward sale of this Cancellation Statement is prohibited.

Transaction Type:	Cancel
Transaction Date:	2011-03-31 00:00:00
Transaction Number:	201103310xxxx
Transaction status:	Completed

From	
Name of Account Holder:	Electricity Producer
Account:	FI- Electricity producer- 643002406500xxxxxx
Domain:	Finland
Street:	Box 666
Postal Code and City:	FI-10000, Helsinki
Country:	Finland

To	
Name of Beneficiary:	Utilities company
Cancellation purpose:	Electricity Sales
Consumption Period:	2010-01-01 to 2010-12-31
Country of Consumption:	Finland
Location of Beneficiary:	Electricity Sales
Type of Beneficiary:	Energy supplier
Usage Category:	Disclosure
Cancelled By:	FI-Grexel Finland

Total MWh:	143
Total GO:	143
Total RECS:	143

Production Device public information	
Production Device Name:	Example device
Production Device GSRN:	643002406666xxxxxx
Domain of Production Device:	Finland
Installed Capacity, MW:	172
Date of Commissioning:	1.1.1979
Location of Production Device:	Road xxx, FI-20000 Utö, Finland
Operator Name:	Operator company
Address of Operator:	Box 666, FI-10000 Helsinki, Finland
Energy Source:	
Non-renewable proportion of waste, Energy crops, Forestry and agricultural by-products and waste	
Support Schemes:	
Investment Aid (Finland), Electricity tax exemption (Finland)	

Certificate Number (From - To)	Volume	Domain	Energy Source	Issuing Date	Production Period	Production device (GSRN, installed capacity, name)	Association	Support Schemes
6430024065559030000000xxxxxx To 6430024065559030000000xxxxxx	55	Finland	Energy crops	2011-xx-xx	2010-01-01 To 2010-01-01	643002406666xxxxxx 172 MW Example device	EECS, GO, RECS	Investment and production support
6430024065559030000000xxxxxx To 6430024065559030000000xxxxxx	88	Finland	Forestry and agricultural by-products and waste	2011-xx-xx	2010-12-31 To 2010-12-31	643002406666xxxxxx 172 MW Example device	EECS, GO, RECS	Investment and production support

Issuing Body
Grexel Systems Ltd.

Place: _____ Date: _____

Signature

Name in print: _____
